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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,550	06/09/2005	Patrick T. Rigney	ITW-13619	7338
45482 7590 09/29/2008 PAULEY PETERSON & ERICKSON 2800 W. HIGGINS ROAD SUITE 365 HOFFMAN ESTATES, IL 60195				
EXAMINER				
FERGUSON, LAWRENCE D				
ART UNIT		PAPER NUMBER		
1794				
MAIL DATE		DELIVERY MODE		
09/29/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/510,550

**Applicant(s)**

RIGNEY ET AL.

**Examiner**

LAWRENCE D. FERGUSON

**Art Unit**

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 31-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CD/C)
- Paper No(s)/Mail Date 8/1/08
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to the amendment mailed September 15, 2008.

Claims 1-34 were cancelled and claims 35-55 were added.

Examiner notes that claims 31-34, filed after final on August 1, 2008, were not entered into prosecution; therefore, only Claims 1-30 were cancelled by Applicant, rendering claims 31-51 pending in the application.

### **Claim Rejections – 35 USC 112**

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 31-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) In claims 31 and 34, the phrase, "wherein the linear low density polyethylene causes the strapping to have increased resistance to splitting in the longitudinal direction while under tension" is indefinite. It is unclear how the linear low density polyethylene causes the strapping to have increased resistance to splitting in the longitudinal direction. It is also unclear how much tension is required in the claim.

b) In claim 31, the phrase, "main polymer chain that is essentially linear" is indefinite. It is unclear whether the main polymer chain is linear or not. In the instant case, the term "essentially" is a relative term which renders the claim indefinite. The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

c) In claims 32-33, the phrase, "wherein the polyolefin causes the strapping to have increased resistance to splitting in the longitudinal direction while under tension." It is unclear how the polyolefin causes the strapping to have increased resistance to splitting in the longitudinal direction. It is also unclear how much tension is required in the claim.

***Claim Rejections – 35 USC § 103(a)***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 31, 33-35, 37-39, 44-45, 47, 49-51 are rejected under 35 U.S.C. 103(a) as being anticipated by Perez et al. (U.S. 6,331,343).

Perez discloses a strapping material (column 2, lines 30-33) that is uniaxially oriented in at least one major axis, including length (longitudinally) orienting (column 2, lines 5-11 and column 5, lines 27-35). The reference discloses the article has a thickness of less than 2.5mm (0.25cm) (column 7, lines 49-53) and is cut to 5cm wide (column 23, lines 10-11). Although

Perez does not explicitly disclose a width of 0.5-3cm, because the reference teaches stretching and cutting the strapping material, it would have been obvious to one of ordinary skill in the art to stretch and/or cut the strapping material to a desired width, such as 0.5-3cm, depending on the use of the strapping material. If the strapping material were used to strap a smaller article, a strapping cut or stretched to a smaller width would be expected. The strapping further comprises a polyethylene terephthalate (polyester) or a polybutylene terephthalate (polyester) (column 3, lines 15-25) which may further comprise less than 30 weight percent of a second polymer, such as linear low density polyethylene (column 3, lines 38-51) where the relative amounts of the first polymer and second polymer can vary widely from 99:1 (column 4, lines 46-55). Because Perez discloses a linear low density polyethylene, it is expected for the linear low density polyethylene to have a main polymer chain that is essentially linear with not more than 5 long chain branches per 1000 ethylene units. Because Perez discloses a linear low density polyethylene strapping, it would have been obvious to one of ordinary skill in the art for the linear low density polyethylene material to cause the strapping to have increased resistance to splitting in the longitudinal direction while under tension, where tension is interpreted as any weight, no matter how small, placed upon the strapping material, as in claims 31, 33, 35, 39, 47 and 51.

Concerning claim 34, because Perez discloses a strapping with more than 97.2% weight percent of polyethylene terephthalate (polyester), it is expected for the polyester material to have an intrinsic viscosity as in claim 34. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773.

Concerning claims 37, 44 and 49, Perez discloses the strapping further comprises styrene block copolymer (column 15, line 62 through column 16, line 12), which is an elastomeric material.

Concerning claims 38, 45 and 50, the material can be stretched in each direction up to 2 to 10 times its original dimension in the direction of stretching (column 9, lines 1-10).

***Claim Rejections – 35 USC § 103(a)***

6. Claims 31-51 are rejected under 35 U.S.C. 103(a) as being anticipated by Perez et al. (U.S. 6,331,343) in view of Nishimura et al (U.S. 5,607,183).

Perez discloses a strapping material (column 2, lines 30-33) that is uniaxially oriented in at least one major axis, including length (longitudinally) orienting (column 2, lines 5-11 and column 5, lines 27-35). The reference discloses the article has a thickness of less than 2.5mm (0.25cm) (column 7, lines 49-53) and is cut to 5cm wide (column 23, lines 10-11). Although Perez does not explicitly disclose a width of 0.5-3cm, because the reference teaches stretching and cutting the strapping material, it would have been obvious to one of ordinary skill in the art to stretch and/or cut the strapping material to a desired width, such as 0.5-3cm, depending on the use of the strapping material. If the strapping material were used to strap a smaller article, a strapping cut or stretched to a smaller width would be expected.

Because Perez does not specifically teach the polyester in the strapping can be polyethylene naphthalate or polyethylene isophthalate, one of ordinary skill in the art would look to the prior art, such as Nishimura, to teach a specific polyester for use within the disclosed

strapping. Nishimura teaches reinforcing belts (straps) for an article (column 1, lines 23-25) where the straps comprise polyester material such as polybutylene terephthalate, polyethylene naphthalate or polyethylene isophthalate (column 14, lines 19-20 and 37-46). Perez and Nishimura are combinable because they are related to a similar technical field, which is reinforcing strap material. Because Nishimura teaches materials such as polyethylene naphthalate and polyethylene isophthalate are known polyester materials within straps, it would have been obvious to one of ordinary skill in the art to substitute polyethylene naphthalate or polyethylene isophthalate for the polyester material of Perez to improve the calender processing ability and compactness of the strapped article (column 14, lines 19-21 and 28-29).

Perez discloses the strapping may comprise less than 30 weight percent of a second polymer, such as linear low density polyethylene (column 3, lines 38-51) where the relative amounts of the first polymer and second polymer can vary widely from 99:1 (column 4, lines 46-55). Because Perez discloses a linear low density polyethylene strapping, it would have been obvious to one of ordinary skill in the art for the linear low density polyethylene material to cause the strapping to have increased resistance to splitting in the longitudinal direction while under tension, where tension is interpreted as any weight, no matter how small, placed upon the strapping material, as in claims 31-36, 39, 42-43, 46-48 and 51.

Concerning claim 34, because Perez discloses a strapping with more than 97.2% weight percent of polyethylene terephthalate (polyester), it is expected for the polyester material to have an intrinsic viscosity as in claim 34. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773.

Concerning claims 37, 40, 44 and 49, Perez discloses the strapping further comprises styrene block copolymer (column 15, line 62 through column 16, line 12), which is an elastomeric material.

Concerning claims 38, 41, 45 and 50, the material can be stretched in each direction up to 2 to 10 times its original dimension in the direction of stretching (column 9, lines 1-10).

***Claim Rejections – 35 USC § 103(a)***

7. Claim 43 and 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perez et al. (U.S. 6,331,343) in view of Steinkamp et al (U.S. 3,862,265).

Perez is relied upon for instant claims 33 as above. Perez does not disclose the polyolefin is grafted with a polar monomer, as in claim 43. Steinkamp teaches a strapping article comprising polyolefins (column 4, lines 12-21, column 10, lines 9-12) where the polyolefin is grafted with maleic anhydride or acrylic acid (polar monomers) (column 12, lines 1-5). Perez and Steinkamp are combinable because they are related to a similar technical field, which is strapping material. It would have been obvious to one of ordinary skill in the art to have grafted the polyolefin material of Perez with maleic anhydride or acrylic acid (polar monomers), as taught in Steinkamp, to increase the clarity of the polymer material and to strengthen (harden) the strapping (column 9, lines 33-44).

***Response to Arguments***



8. The rejection made under 35 U.S.C. 112, second paragraph, over claims 1-12 and 14-30 is withdrawn due to Applicant's cancelling claims 1-30.

The rejection made under 35 USC 102(b) as being anticipated by Perez et al (U.S. 6,331,343) is withdrawn due to Applicant's cancelling claims 1-6, 9-10, 12, 15-17 and 29-30.

Applicant's arguments of the rejection made under 35 USC 103(a) as being unpatentable over Perez et al (U.S. 6,331,343) have been considered but are unpersuasive. Concerning new claims 31-51, Applicant argues the instantly claimed invention is opposite of Perez, which employs compositions and dimensions designed to facilitate longitudinal splitting of a film into numerous microfibers, versus a strapping that resists longitudinal splitting while under tension. Applicant's argument is well taken; however, Perez teaches the high strength material can be used as strapping materials having crack propagation prevention (column 2, lines 30-36) which appears to meet Applicant's intended use of a strapping that resists longitudinal splitting while under tension, where tension is interpreted as any weight, no matter how small, placed upon the strapping material. Applicant also argues the presently claimed invention mixes polyester with polyolefins at the claimed concentrations to improve resistance to splitting compared to similar strapping formed from polyester without the polyolefin additive. Because Perez discloses mixing similar polyester with similar polyolefins at similar concentrations to those claimed, it is expected for the materials to also have improved resistance to splitting.

Applicant's arguments of the rejection made under 35 USC 103(a) as being unpatentable over Perez et al (U.S. 6,331,343) in view of Nishimura et al (U.S. 5,607,183) have been considered but are unpersuasive. Applicant argues Nishimura does not disclose Applicant's

invention, which is directed to the use of small amounts of polyolefin in oriented polyester strapping having the claimed dimensions. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Because Perez has been maintained for using small amounts of polyolefin in oriented polyester strapping with the claimed dimensions, Perez in view of Nishimura is also maintained.

Applicant's arguments of the rejection made under 35 USC 103(a) as being unpatentable over Perez et al (U.S. 6,331,343) in view of Maugans et al (U.S. 6,270,891) is withdrawn due to Applicant's cancelling claim 11.

Applicant's arguments of the rejection made under 35 USC 103(a) as being unpatentable over Perez et al (U.S. 6,331,343) in view of Steinkamp et al (U.S. 3,862,265) have been considered but are unpersuasive. Applicant argues Steinkamp does not disclose Applicant's invention, which is directed to the use of small amounts of polyolefin in oriented polyester strapping having the claimed dimensions. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Because Perez has been maintained for using small amounts of polyolefin in oriented polyester strapping with the claimed dimensions, Perez in view of Steinkamp is also maintained.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks, can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Lawrence Ferguson/  
Patent Examiner, Art Unit 1794

/KEITH D. HENDRICKS/  
Supervisory Patent Examiner, Art Unit 1794